# TNS5800ECN-24T4GT-HV
# Layer 3 Wall Mounting Industrial Ethernet Switch
# Quick Installation Guide

## 【Package Checklist】

Please check the integrity of package and accessories while first using the switch.

1 Switch ×1 2. Warranty card

3. Certificate

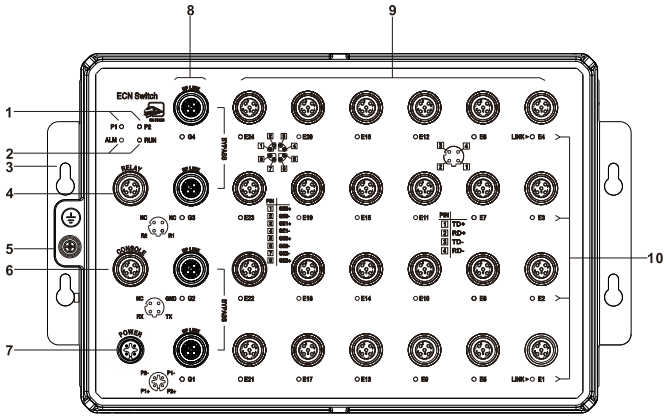
If any of these items are damaged or lost, please contact our company or dealers, we will solve it ASAP.

## 【Product Overview】

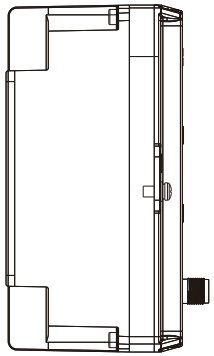
This series products are layer-3 wall-mounted industrial Ethernet switches. The model is TNS5800ECN-24T4GT-HV-N (24 100M M12 + 4 Gigabit Bypass M12, 66~156VAC/DC single power supply with double inputs).

## 【Panel Design】

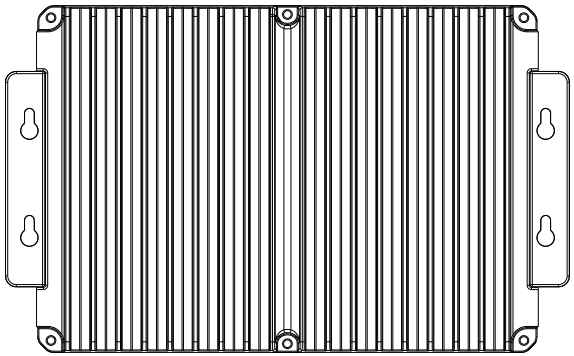
➢ **Front view**



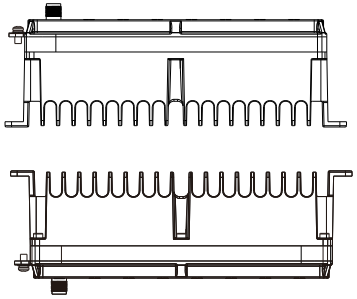

➢ **Right view**



➢ **Rear view**



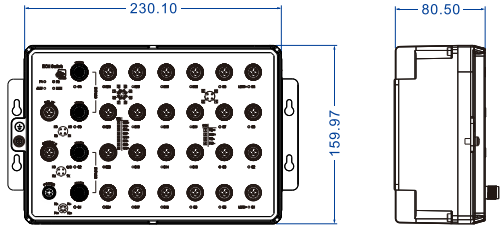
➢ **Bottom view and top view**

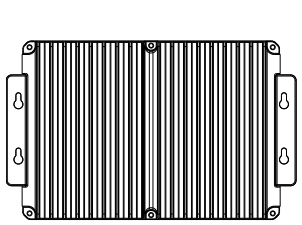


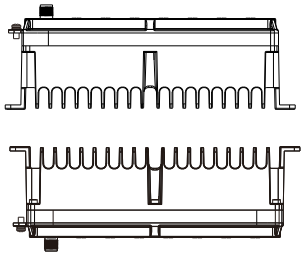
1. Power supply indicator (P1-P2)
2. Alarm indicator (ALM) and running indicator (RUN)
3. Lugs
4. Relay alarm output interface (RELAY)
5. Grounding screw (M5)
6. CONSOLE port
7. Power input interface (P1-P2)
8. Gigabit Bypass M12 interface (Bypass: G1-G2, G3-G4)
9. 100M Ethernet port (E1-E24)
10. Ethernet port indicator (E1-E24, G1-G4)

## 【Mounting Dimension】

Unit: mm





**Notice Before Mounting:**

- Don't place or install the device in area near water or moisture, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before powering on the device, check the power specifications supported by the device to prevent device damage due to overvoltage.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

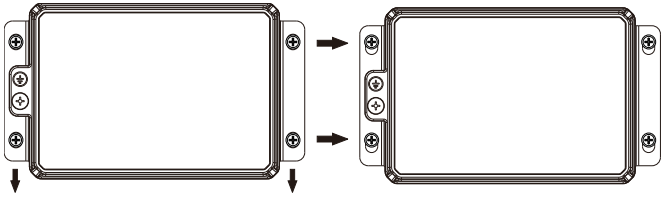
## 【Wall-mounted Device Mounting】

Step 1 On the wall of device mounting, place the device on the wall for reference or refer to the mounting dimension to mark two screw positions.

Step 2 Hang the device on the labeled wall, align the bolt

to the labeled position, then fix them with a certain gap.

Step 3 Slide the device down to hang on the screw, then tighten the screw, and the installation is finished.



## 【Wall-mounted Device Disassembling】

Step 1 Power off the device.

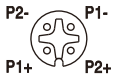
Step 2 Hold the device steady and unscrew the screw on the wall.

Step 3 Take out the device, disassembling ends.

**Notice Before Powering on:**

- Power ON operation: First insert the power supply terminal block into the device power supply interface, and then plug the power supply plug and power on.
- Power OFF operation: First, remove the power plug, then remove the wiring section of terminal block. Please pay attention to the above operation sequence.

## 【Power Supply Connection】




The power interface of this device adopts M12 A-Coded 4-Pin pin (male) connector, with built-in single power supply supporting P1 and P2 DC redundant power input. The power input supports 1 single power supply input or 2 power supply inputs at the same time; When two power supply input at the same time, it supports redundant backup of power supply. If one power supply fails, the device can still work normally without interruption. Power supply supports anti-reverse connection, which cannot power the device but won't damage it when it's reversely connected. Power supply input range: 110VDC (66~156VDC). The pin definitions of M12(male) are shown in the figure.

## 【Relay Connection】


The device provides 1 M12 D-Coded 4-Pin slot (female), supports 1 relay alarm output. The relay supports power supply output alarm or network abnormality alarm. It can be connected to alarm light or alarm buzzer or other switching value collecting devices, which can timely inform operators when the alarm occurs.

The pin definitions of relay are shown as follows:

| Pin No. | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Definition | R1 | R2 | NC (reserved) | NC (reserved) |

The relay status is shown in the figure below:

| Device status | Relay Contacts | Alarm |
|---|---|---|
| Not powered on or powered off, | Closed | Yes |
| Powered on, but not working properly | Closed | Yes |
| Powered on, and working properly without triggering any alarm | Disconnected | None |
| Powered on, and working properly, but it triggered alarms | Closed | Yes |

## 【Console Port Connection】


The product provides 1 program debugging port based on RS-232 serial port which can conduct device CLI command management by connecting to PC. The interface adopts M12 D-Coded 4-Pin slot (female). The pin definitions of M12 are shown as follows:

| Pin No. | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Definition | TX- | RX | NC (reserved) | GND |

## 【Communication Interface Connection】

➢ **100M M12 Interface**


This device provides 24 10/100Base-T(X) self-adaptive 100M M12 interfaces, the interface type is M12 D-Coded 4-Pin slot (female). The definitions of M12 pin are as follows:

| Pin No. | Definition | Description |
|---|---|---|
| 1 | TD+ | Positive send data of 100M Ethernet |
| 2 | RD+ | Positive receive data of 100M Ethernet |
| 3 | TD- | Negative send data of 100M Ethernet |
| 4 | RD- | Negative receive data of 100M Ethernet |

➢ **Gigabit M12 interface**


This device provides 4 10/100/1000Base-T(X) self-adaptive Gigabit M12 interfaces, the interface type is M12 X-Coded 8-Pin slot (female). Two groups of Bypass are supported, in which G1 and G2 are a group and G3 and G4 are a group. The pin definitions of M12 are shown as follows:

| Pin No. | Definition | Description |
|---|---|---|
| 1 | GE0+ (DA+) | Positive bi-directional data of Gigabit Ethernet group 1 |
| 2 | GE0- (DA-) | Negative bi-directional data of Gigabit Ethernet group 1 |
| 3 | GE1+ (DB+) | Positive bi-directional data of Gigabit Ethernet group 2 |
| 4 | GE1- (DB-) | Negative bi-directional data of Gigabit Ethernet group 2 |
| 5 | GE3+ (DD+) | Positive bi-directional data of Gigabit Ethernet group 4 |
| 6 | GE3- (DD-) | Negative bi-directional data of Gigabit Ethernet group 4 |
| 7 | GE2- (DC-) | Negative bi-directional data of Gigabit Ethernet group 3 |
| 8 | GE2+ (DC+) | Positive bi-directional data of Gigabit Ethernet group 3 |

## 【Checking LED Indicator】

The device provides LED indicators to monitor its operating status, which has simplified the overall troubleshooting process. The function of each LED is described in the table

below:

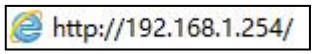
| LED | Indicate | Description |
|---|---|---|
| P1/P2 | ON | Power P1/2 is running normally |
| | OFF | Power P1/2 is disconnected or running abnormally |
| ALM | ON | Power supply or port link has alarm |
| | OFF | Power supply, port link without alarm |
| RUN | ON | The device is running abnormally |
| | Blinking | Blinking 1 time per second, system is running normally |
| | OFF | The device is powered off or the device is abnormal. |
| LINK (E1-E24, G1-G4) | ON | Ethernet port has established a valid network connection |
| | Blinking | Ethernet port is in an active network status |
| | OFF | Ethernet port has not established valid network connection |

## 【Logging in to WEB Interface】

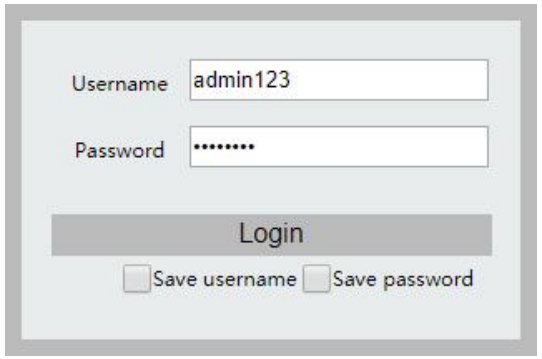
This device supports WEB management and configuration. Computer can access the device via Ethernet interface. The way of logging in to device's configuration interface via IE browser is shown as below:

Step 1 Configure the IP addresses of computer and the device to the same network segment, and the network between them can be mutually accessed

Step 2 Enter device's IP address in the address bar of the computer browser.




Step 3 Enter device's username and password in the login window as shown below.




Step 4 Click "Login" button to login to the WEB interface of the device.

**Note:**

- The default IP address of the device is "192.168.1.254".
- The default username and password of the device are "admin123".
- If the username or password is lost, user can restore it to factory settings via management software; all modified configurations will be cleared after restoring to factory settings, so please backup configuration file in advance.
- Please refer to user manual for specific configuration method of logging in to WEB interface and other configurations about network management function.

## 【Specification】

| Panel | |
|---|---|
| Gigabit M12 | 10/100/1000Base-T(X), M12(Female), 8-Pin X-Coded, Automatic Flow Control, Full/half Duplex Mode, MDI/MDI-X Autotunning; support two groups of Bypass |
| 100M M12 | 10/100Base-T(X), M12(Female), 4-Pin D-Coded, Automatic Flow Control, Full/half Duplex Mode, MDI/MDI-X Autotunning |
| Console port | CLI command line management port (RS-232), M12(Female), 4-Pin D-Coded |
| Alarm port | M12(Female), 4-Pin D-Coded, support 1 relay alarm output, with current load capacity of 1A@30VDC or 0.3A@125VAC |
| Indicator | Power indicator, alarm indicator, running indicator, interface indicator |
| **Switch Property** | |
| Backplane bandwidth | 128G |
| Buffer size | 12Mbit |
| MAC address table | 16K |
| **Power Supply** | |
| Power input | 110VDC (66~156VDC), single power supply with double inputs, support anti-reverse connection |
| Connection mode | M12(Male), 4-Pin A-Coded |
| **Power Consumption** | |
| No-load | 18.6W@110VDC |
| Full-load | 18.2W@110VDC |
| **Working Environment** | |
| Working temperature | -40~75℃ |
| Storage temperature | -40~85℃ |
| Working humidity | 5%~95% (no condensation) |
| Protection grade | IP67(metal shell) |

## 【Disposal of Waste Electrical and Electronic Equipment (WEEE 2012/19/EU)】

(Applicable in the EU-member states)

The crossed-out wheeled bin symbol on the equipment or its packaging indicates that the product, at the end of its service life, shall not be mixed with unsorted municipal waste

but should be collected separately, in accordance with local laws and regulations.

A proper separate collection of end-of-life equipment for the subsequent recycling, treatment and environmentally compatible disposal, will help prevent potential damage to the environment and human health, facilitating the reuse, recycling and/or recovery of its component materials.

Private users should contact their vendor or municipal waste management service and ask for disposal information.

Professional users should contact their suppliers and check the terms of their selling agreement.

This product must not be disposed of with other commercial waste.

Users' cooperation in the correct disposal of this product will contribute to saving valuable resources and protecting the environment.